

Levels of physical activity and quality of life in elderly women practitioners of formal and non-formal physical activities*

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Background. Quality of life is a factor directly linked to the context of aging, being one of those responsible for the increase or decrease of the population's longevity. The objective of this research was to evaluate the levels of physical activity and quality of life in elderly women practitioners of formal and non-formal physical activities.

Materials and methods. The sample consisted of 122 elderly women aged 60 to 87 years (67.9 ± 6.9), accompanied by the Family Health Strategy from the city of Crato (Ceará-Brazil), divided into two equal groups of 61 elderly women practitioners of formal physical activities (AFF) and non-formal physical activities (AFNF). To determine the level of physical activity, the Modified Baecke Questionnaire for the Elderly was used. The quality of life was assessed by the WHOQOL-OLD questionnaire. The statistical treatment comprised descriptive and inferential analysis. Data were analyzed using SPSS, 16.0 version for Windows. The level of significance and statistical error considered were 5% ($p < 0.05$).

Results. The levels of physical activity were low, the scores for the AFF group being 4.45 and for the AFNF group 1.71. The quality of life level was classified as medium (AFF = 13.38 and AFNF = 11.84).

Conclusions. The group practicing the AFF showed better results in the evaluations of Baecke and WHOQOL-old compared to the group of AFNF. We conclude that the participation in a program of formal physical activity is able to improve quality of life.

It is recommended to conduct complementary studies aimed to analyze the relation of physical activity to quality of life, with a view to emphasize the importance of the systematic practice of exercises in improving the overall health status of the elderly.

Key words: the elderly, physical activity, quality of life

INTRODUCTION

Population aging is a relatively new phenomenon in the whole world. According to data of the World Health Organization, the life expectancy of the world population will be 73 years in 2025 (1). The latest Demographic Census in Brazil (1) has reported that about 10 million people in the population are aged over 65 years (2). According to data from the same Foundation, in the year 2020 Brazil will have the sixth world's population in the absolute numbers of elderly people (3).

In 1994, in Brazil the National Policy of the Elderly was established, whose guidelines ensure the development of ac-

tions to guide the elderly and individuals in the aging process on the importance of constant improvement of their functional abilities through the adoption of healthy habits early in life and elimination of behaviours harmful to health (4).

Quality of life is a factor directly linked to the context of aging, one of those responsible for the increase or decrease in the longevity of the population (5). The concern to maintain the habits that ensure a healthy old age marks a new stage of awareness; thus, the practice of physical activity becomes an important factor in achieving the desired standard in some aspects of quality of life (5).

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The concern to promote a better quality of life for the elderly has proven the relevance of scientific studies on physical activity as adjuvant in the prophylactic and therapeutic process of certain chronic diseases (6–8).

The active lifestyle through physical activity acts as a promoter of health and better quality of life, allowing reduction of premature death directly acting on the prevention of several non-transmittable chronic diseases (9).

The assessment of quality of life (QOL) is growing in importance as a measure in the evaluation of therapeutic interventions, services and daily care practice. Improving the quality of life has become one of the expected outcomes of care practices and public policies in the field of health promotion (10).

Considering the apparent increase in the elderly population in Brazil (11), it is important to seek the strategies that promote the welfare and quality of life of this population segment. Thus, the practice of physical activity has been gaining increasing significance in the promotion of the elderly's health.

Based on the above, the present research aimed to evaluate the levels of physical activity and quality of life in elderly women practitioners of formal and non-formal physical activities.

MATERIALS AND METHODS

The sample consisted of 122 elderly women aged 60 to 87 years (67.9 ± 6.9), voluntary, intentionally chosen, accompanied by the Family Health Strategy of the municipal city hall of Crato (Ceará-Brazil), in the months of September to November 2008, upon agreeing to participate in the study according to the 196 / 96 resolution. The ethical precautions of the research were corroborated by the approval of the project by the Ethics Committee in Research from the Castelo Branco University (UCB-RJ) under No. 0159/2008.

Based on the type of physical activity performed, the participants of the research were divided into two equal groups of 61 elderly women practitioners of formal physical activities (AFF) (walk three times a week for 30 minutes, at least for three months, with 75% of presence in this activity) and non-formal physical activities (AFNF) (daily activities that result in energy expenditure, but not performed in order to exercise).

To elucidate the level of physical activity, we used the version of the Baecke Questionnaire Modified for Elderly People (QBMI), validated in Brazil on 30 elderly women by Mazo et al. (12) and used in epidemiological studies in Brazilian population to evaluate the habitual physical activity (13). This recall assesses the level of physical activity in three areas: work performed at home, sports and leisure activities. The scores are obtained through specific questions and by the relation among the type, frequency and intensity of the activity; higher scores in this instrument mean a high level of physical activity (14).

The Quality of Life (QOL) was assessed using the WHO-QOL-OLD instrument modified for elderly people, which assesses the QOL in six facets: Functioning of the Sensory Apparatus, Autonomy, Past, Present and Future Activities, Social Participation, Death and Dying and Intimacy, where high scores represent a high quality of life (15).

Data analysis was performed using the SPSS statistical package, 16.0 version for Windows. The results of the descriptive statistical analysis are presented with the average, median, standard error and standard deviation. For inferential analysis, we used Student's t test to find statistical differences between the two groups. For all procedures, a significance interval 5% was adopted ($p < 0.05$).

RESULTS

The results (Tables 1 and 2) present the descriptive and inferential statistics of the level of physical activity and quality of life of elderly women – practitioners of AFF and AFNF.

The values obtained by participants in the Baecke questionnaire showed statistically significant differences between the average values of the scores from each classification, considering $p < 0.05$; in addition, the Baecke scores in the AFF group were better as compared with the values for the AFNF group.

Statistically significant differences ($p < 0.05$) were identified in all facets (with the exception of domain 6) and overall QOL in the WHOQOL-OLD on the involvement in physical activities.

DISCUSSION

The QBMI scores found in both groups (AFF = 4.45, AFNF = 1.71) are well below the values of similar studies involving elderly people (Table 1). As an example, the study of Miyasike da Silva (16) was taken, conducted with 61 elderly people divided into three groups, where, through Baecke, an average of 3.19 points for a group of sedentary elderly and in two other groups of physically active elderly people the average values of 8.53 and 7.82 points were found. The fact that the elderly women of this research did not practice any type of sports activity may have contributed to the low levels of physical activity.

However, statistically significant differences were noted in results when comparing the two groups, i. e. elderly women from the group that practiced AFF, despite presenting lower scores than expected, obtained better results in QBMI than the elderly women practitioners of AFNF, contributing to the assertion that the practice of daily life activities alone does not guarantee the same level of physical activity compared with the practice of formal physical activity (17).

In Table 2, we show statistically significant differences in the scores of facets from WHOQOL and QVG-Old (with the exception of facet 6 = intimacy which is not associated with physical activities) as for the involvement in physical

Table 1. Level of physical activity by the instrument of Baecke and its components in elderly women practitioners of AFF (n = 61) and AFNF (n = 61), enrolled in the Family Health Unit of Crato-CE

		Average	Standard deviation	Standard error	Median	T
Domestic	AFF	2.09	0.37	0.05	2.1	5.163**
	AFNF	1.71	0.44	0.06	1.8	
Leisure	AFF	2.36	1.63	0.21	3.15	11.272**
	AFNF	0.00	0.00	0.00	0	
General	AFF	4.45	1.70	0.22	4.75	12.129**
	AFNF	1.71	0.44	0.06	1.8	

AFF = formal physical activities, AFNF = non-formal physical activities, t (test Student's), ** p < 0.01 (statistically significant differences between the AFF and AFNF groups).

Table 2. The level of quality of life according to the WHOQOL-OLD questionnaire from the elderly women practitioners of AFF (n = 61) and AFNF (n = 61), enrolled in the Family Health Unit of Crato-CE

		Average	Standard deviation	Standard error	Median	T
Facet 1	AFF	10.33	2.68	0.343	10.0	-
	AFNF	9.20	2.34	0.300	9.0	2.484**
Facet 2	AFF	14.44	2.65	0.339	15.0	-
	AFNF	11.49	2.56	0.328	12.0	6.265**
Facet 3	AFF	16.03	1.99	0.255	16.0	-
	AFNF	13.26	3.59	0.460	14.0	5.269**
Facet 4	AFF	15.84	1.80	0.230	16.0	-
	AFNF	13.16	3.29	0.421	13.0	5.569**
Facet 5	AFF	9.90	4.45	0.570	11.0	-
	AFNF	11.34	3.39	0.434	12.0	2.013**
Facet 6	AFF	13.74	2.97	0.381	15.0	-
	AFNF	12.85	2.69	0.344	13.0	1.725
QoL	AFF	13.38	1.27	0.163	13.3	-
	AFNF	11.89	1.84	0.236	12.2	5.224**

AFF = formal physical activities, AFNF = non-formal physical activities, Facet 1 = functioning of sensory, Facet 2 = autonomy, Facet 3 = past, present and future activities, Facet 4 = social participation, Facet 5 = death and dying, Facet 6 = intimacy, QoL-old = overall quality of life, ** p < 0.05 (statistically significant differences between AFNF and AFF groups).

activities, i. e. the elderly women from the AFF group showed better levels of QOL than the elderly women from the AFNF group.

Studies by Castro (18) also showed similar results regarding QVG-Old in elderly women practitioners of regular physical activities. According to Néri (19), the more active the elderly, the higher their satisfaction with life and, consequently, the better their quality of life, which could also be observed in the studies of White, Wójcicki and McAuley (20) analyzing the relation of the levels of physical activity with quality of life in the elderly.

Based on the results of the WHOQOL, we noted that 70% of the AFF group and 60% of the AFNF group showed the quality of life levels classified as medium (13.38 and 11.84). In similar surveys, Figueira (21) and Verma (22) analyzed the QOL of elderly people and found that 48% and 51%, respectively, presented satisfactory QOL levels.

As the basis for this classification were adopted the studies by Mello (23), using the same instrument in the elderly, presenting the average for QVG-Old (13.17) similar to that found in this study. It proposes a categorical classification of the WHOQOL-OLD, where scores between 14.1 and 20 corre-

spond to a high QOL, between 11 and 14 to an average QOL, and scores below 10.9 mean a low QOL.

The results found in the research indicate that people who show low levels of physical activity throughout their life will suffer the greater impact of aging, and those who remain physically active tend to have a better quality of life (24).

CONCLUSIONS

The group practicing AFF showed better results as compared to the group that only practiced domestic activities, indicating that participation in a program of formal physical activity is able to contribute to an increased level of physical activity and a better quality of life.

It is recommended to conduct further studies aimed to analyze the relation between the practice of physical activity with functional autonomy and quality of life, with a view to emphasize the importance of a systematic practice of exercises in improving the overall health status of the elderly.

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Nelyse de Araújo Alencar, Márcia de Assunção Ferreira,
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PAGYVENUSIŲ MOTERŲ, PRAKTIKUOJANČIŲ FORMALIĄ IR NEFORMALIĄ FIZINĘ VEIKLĄ, FIZINIO AKTYVUMO IR GYVENIMO KOKYBĖS LYGIAI

Santrauka

Įvadas. Gyvenimo kokybė yra tiesiogiai susijusi su amžiumi ir lemia populiacijos ilgaamžiškumo didėjimą ar mažėjimą. Šio darbo tikslas – įvertinti pagyvenusių moterų, praktikuojančių formalią ir neformalią fizinę veiklą, fizinio aktyvumo ir gyvenimo kokybės lygį.

Metodai. Tiriamųjų grupę sudarė 122 vyresnio amžiaus moterys nuo 60 iki 87 metų ($67,9 \pm 6,9$) (tyrimą remia Crato miesto (Ceará-Brazil) šeimos sveikatos raidos centras), kurios buvo suskirstytos į dvi grupes (po 61 moterį), praktikuojančias formalią (AFF) ir neformalią (AFNF) fizinę veiklą. Fizinio aktyvumo lygis nustatytas naudojant „Modifikuotą pagyvenusių žmonių Baecke klausimyną“, gyvenimo kokybė vertinta pagal WHOQOL-OLD klausimyną. Atliktos aprašomoji ir analitinė statistinė analizės. Duomenys analizuoti SPSS statistinės programos 16.0 versija. Pasirinktas reikšmingumo lygmuo 5 % ($p < 0,05$).

Rezultatai. Remiantis Baecke klausimynu, abiejose grupėse buvo nustatyti žemi fizinio aktyvumo lygiai: formalią fizinę veiklą praktikavo 4,45, neformalią fizinę veiklą – 1,71 moterų. Pagal WHOQOL-OLD klausimyną išskirti vidutiniai gyvenimo kokybės lygiai (AFF = 13,38 ir AFNF = 11,84).

Išvados. Baecke ir WHOQOL-OLD klausimynais nustatyta, kad formalią fizinę veiklą praktikuojančių moterų rezultatai buvo geresni, lyginant su neformalią fizinę veiklą praktikuojančiomis moterimis. Dalyvavimas formalioje fizinėje veikloje gali padidinti fizinio aktyvumo lygį ir turėti įtakos gyvenimo kokybei. Rekomenduojama pratęsti tyrimus pabrėžiant fizinių pratimų naudą bendrai pagyvenusių žmonių sveikatos būklei.

Raktažodžiai: pagyvenusios moterys, fizinis aktyvumas, gyvenimo kokybė